

Page Vick - NOAA Affiliate

From: Page Vick - NOAA Affiliate
Sent: Wednesday, July 22, 2020 12:27 PM
To: Joe Heublein - NOAA Federal
Cc: Joseph Dillon - NOAA Federal; Joel Casagrande - NOAA Federal
Subject: Re: Green Sturgeon RC? - diet information needed
Attachments: Update on green sturgeon contaminants analysis_Layshock_WDFW_30aPR20.pptx; Feist et al. 2005_Environmental Contaminants and White Sturgeon.pdf

Yes, Julie Layshock (julielayshock@pacificu.edu) from Pacific University presented some results from the WDFW Columbia River Estuary studies at the WCR Green Sturgeon call in April. I've attached that powerpoint for you, but I would clear it first with Julie about using the information. Laura Heironimus (laura.heironimus@dfw.wa.gov) is currently the sturgeon lead at WDFW. She may know more information on published work or reports. I've attached a study on contaminants and white sturgeon in the Columbia River estuary.

I would also reach out to Robin Stewart at USGS in Menlo Park (arstewar@usgs.gov). She looks at selenium concentrations in muscle, liver, and ovary tissues of green sturgeon. However, I'm not sure if she has processed samples recently.

Please let me know if you need anything else. I'll keep looking and send along more information as I find it.
Thanks,
Page

On Wed, Jul 22, 2020 at 11:57 AM Joe Heublein - NOAA Federal <joe.heublein@noaa.gov> wrote:
Hey Joe!

I'll defer to Page on some of the details here but I don't think any estuaries other than SF and Columbia were designated critical habitat. There has been a bunch of lab studies on selenium toxicity mostly out of UCD and some toxicology studies involving sDPS and nNPS sampled in the Columbia River estuary by WDFW, not sure if it was ever published.

Cheers,

Joe

On Wed, Jul 22, 2020 at 2:14 PM Joseph Dillon - NOAA Federal <joseph.j.dillon@noaa.gov> wrote:
Thanks Joel

Vick and Joe - EPA will be initiating consultation in the next few months for a new selenium water quality standard and they have requested technical assistance regarding green sturgeon diet and habitat utilization. Please see the pasted email below. Basically, there is pretty good information within SF Bay Delta, but things are lacking outside of the Bay. I'm trying to help them track something useful down. Any new info you can point me to, or if there is a Science Center person you think may know, would be helpful. They've already gone through the critical habitat designation.

Thanks in advance, and I hope you are safe and well,

Joe D.

Pasted email:

Hi Joe,

Hope you are doing well.

This is a request for technical assistance concerning green sturgeon (*Acipenser medirostris*), a federally listed 'threatened' species. As you know, EPA is including green sturgeon in its Biological Evaluation for the ESA consultation on EPA's proposed federal rule for selenium water quality criteria in California; green sturgeon is an important and critical species for this analysis. Specifically, we are seeking assistance with identifying green sturgeon habitat (outside of the San Francisco Bay and Delta) and diet.

The areas covered by our action include enclosed bays and estuaries (estuarine waters) in California, except the San Francisco Bay and Delta, and inland surface waters (freshwaters) in California. Although green sturgeon are mainly found in the San Francisco Bay and Delta in California, it appears from the NMFS final critical habitat designation (74 FR 52300, October 9, 2009) that green sturgeon may be found in other estuaries along the California coast. EPA would like NMFS expertise to identify these estuaries in California. Once waters are identified, we are seeking assistance with identifying the dietary make-up of these sturgeon. In the San Francisco Bay and Delta area, the invasive clam *Potamocorbula amurensis* (Corbula) is an important part of sturgeon diet, and accumulates selenium very efficiently. However, our research indicates that Corbula is not prevalent (or even existent) in other estuaries outside of its native estuarine habitat in China and Russia (see California Department of Fish and Wildlife at: <https://invasions.si.edu/nemesis/calnemo/SpeciesSummary.jsp?TSN=81746>). We are seeking NMFS expertise to correctly identify other prey species (and approximate amounts) for green sturgeon in these other California estuaries.

Please let us know whether you or another expert at NMFS could provide assistance or direction. Thanks and hope to hear from you soon.

Best,

Diane

Diane E. Fleck, P.E., Esq.

U.S. EPA Region 9 WTR-2-1

Southern California Field Office

600 Wilshire Blvd., Suite 940

Los Angeles, CA 90017

Phone: 213 244-1836

----- Forwarded message -----

From: **Joseph Dillon - NOAA Federal** <joseph.j.dillon@noaa.gov>

Date: Wed, Jul 22, 2020 at 11:03 AM

Subject: Re: Green Sturgeon RC?

To: Joseph J Dillon <Joseph.J.Dillon@noaa.gov>

On Wed, Jul 22, 2020 at 8:44 AM Joel Casagrande - NOAA Federal <joel.casagrande@noaa.gov> wrote:
Hi Joe,

It is striped bass in Carmel and Salinas - not green sturgeon. Cc'd Joe Heublien - he would know.

Unfortunately our WCR website is a little light on details for sturgeon diets. The RC is apparently Vick Page, a contractor in the CVO.

Joel

On Wed, Jul 22, 2020 at 8:23 AM Erin Seghesio - NOAA Federal <erin.seghesio@noaa.gov> wrote:

On Tue, Jul 21, 2020 at 3:02 PM Joseph Dillon - NOAA Federal <joseph.j.dillon@noaa.gov> wrote:

Hey Erin - I hope this email finds you well. I'm going a bit feral myself . . .

Hopefully you and the family have worked out some sort of routine by now so you are getting some personal time to relax.

I'm wondering who the green sturgeon recovery coordinator is now? Or do you know who at the Science Center, if anyone, is an expert? I have a request from EPA for up to date dietary information for a BA they are writing for selenium. They have plenty of SF Bay data, but are wondering if there is anything outside of the Bay.

Anyway, I guess I'll try to focus on work. ?? Leslie has brought me over a bunch of farm plans to review/write-up in advance in hopes we can get out again this year. Water Board is giving an extension until the end of the year on their permit. At least I can pick out the sites that are so simple we do not need to see them. And it gives me something concrete to accomplish.

Wishing you the best,
Joe

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Joe Dillon
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Erin Seghesio

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During the COVID-19 pandemic I am under mandatory telework. I may be working flexible hours to balance family and personal needs. I appreciate your patience if my response time is delayed. If you have a request, please specify important timeframes or deadlines. I will do my best to respond accordingly. Thank you.

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Joel Casagrande
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Due to the COVID-19 pandemic I will be teleworking until further notice. During this time, email will be the best way to contact me. If a phone call is necessary, please email me and I will respond as soon as possible. If you have a specific request, please specify important timeframes or deadlines and I will do my best to respond accordingly. Thank you.

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Joe Heublein

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